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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* HIDEYASU MATSUMURA  
and  
YASUTAKA TSUTSUI

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Appeal 2009-011671  
Application 10/540,866  
Technology Center 1700

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Decided: September 28, 2009

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Before CHUNG K. PAK, PETER F. KRATZ, and MARK NAGUMO,  
*Administrative Patent Judges.*

PAK, *Administrative Patent Judge.*

**DECISION ON APPEAL**

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1 through 16, the only claims pending in the

application (the second Non-Final Office Action mailed March 21, 2008).<sup>1</sup>

We have jurisdiction under 35 U.S.C. §§ 6 and 134.<sup>2</sup>

We AFFIRM-IN-PART.

#### STATEMENT OF THE CASE

The subject matter on appeal is directed to expandable beads of a styrene-modified low-density polyethylene-based resin, a method of making the expandable beads, pre-expanded beads made from the expandable beads, and expanded molded articles made from the pre-expanded beads (Specification (Spec.) 1, ll. 10-13 and claims 1, 3, 5, 6, 11, and 14). The appealed method claims are said to yield beads having a low amount (< 2 w%) of insoluble styrene-grafted LDPE (Spec. 47-48). Such polymers are said to be easy to recycle (Spec. 12). This appealed subject matter is similar to the subject matter considered in Appeal No. 2009-005987 (the subject matter claimed in copending Application 10/541,391), except for the polymerization temperature employed, the amount of the polystyrene component per the amount of non-crosslinked linear low-density polyethylene component employed, the amount of a graft polymer present in the gel content of the expandable beads formed, and/or the gel content of the expandable beads formed. The polymers made by the method claimed in the copending 391 Application are said to have a relative large amount of styrene-grafted LDPE. Such polymers are said to be hard to recycle (Spec,

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<sup>1</sup> A hearing was held on September 17, 2009.

<sup>2</sup> Although the action appealed from was a non-final rejection, we have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134 since the claims have been twice presented and rejected. *See Ex parte Lemoine*, 46 USPQ2d 1420, 1423 (BPAI 1994).

12). Details of the appealed subject matter are recited in illustrative claims 1, 3, 5, 6, 11, and 14 reproduced from the Claims Appendix to the Appeal Brief ("App. Br."), filed September 18, 2008 as shown below:

1. A method for producing expandable beads of a styrene-modified linear low-density polyethylene-based resin comprising, in the order recited, the steps of:

dispersing 100 parts by weight of non-crosslinked linear low-density polyethylene-based resin beads, 50 to 1000 parts by weight of a styrene-based monomer, and 0.1 to 0.9 parts by weight of a polymerization initiator relative to 100 parts by weight of the styrene-based monomer into a suspension containing a dispersant;

impregnating the styrene-based monomer into the low-density polyethylene-based resin beads by heating a resultant dispersion at such a temperature that polymerization of the styrene-based monomer does not substantially take place;

performing polymerization of the styrene-based monomer at a temperature of (T-15) to (T-8) °C or (T+1) to +T+5) °C (where T °C is a melting point of the low-density polyethylene-based resin beads); and

impregnating a volatile blowing agent into the resin beads during or after the polymerization,

whereby resin components of the expandable beads contain a gel component comprising less than 2 wt% of a graft polymer.

3. A method for producing expandable beads of a styrene-modified linear low-density polyethylene-based resin comprising, in the order recited, the steps of:

dispersing 100 parts by weight of non-crosslinked linear low-density polyethylene-based resin beads, 30 to 300 parts by weight of a styrene-based monomer, and 0.1 to 0.9 parts by weight of a polymerization initiator relative to 100 parts by weight of the styrene-based monomer into a suspension containing a dispersant;

impregnating the styrene-based monomer into the low-density polyethylene-based resin beads by heating a resultant dispersion at such a temperature that polymerization of the styrene-based monomer does not substantially take place;

performing a first polymerization of the styrene-based monomer at a temperature of (T-15) to (T-8) °C or (T+1) to (T+5) °C (where T °C is a melting point of the low-density polyethylene-based resin beads);

adding a styrene-based monomer and 0.1 to 0.9 parts by weight of a polymerization initiator relative to 100 parts by weight of the styrene-based monomer when a conversion ratio of polymerization reaches to 80 to 99.9%, and performing impregnation of the styrene-based monomer into the low-density polyethylene-based resin beads and a second polymerization of the styrene-based monomer at a temperature of (T-15) to (T-8) °C or (T+1) to (T+5) °C (where T °C is a melting point of the polyethylene-based resin beads) (wherein a total amount of the styrene monomers used in the first and second polymerizations is more than 50 parts by weight and not more than 1000 parts by weight relative to 100 parts by weight of the low-density polyethylene-based resin beads); and

impregnating a volatile blowing agent into the resin beads during or after the polymerization,

whereby resin components of the expandable beads contain a gel component comprising less than 2 wt% of a graft polymer.

5. Expandable beads of a styrene-modified linear low-density polyethylene-based resin comprising a volatile blowing agent and a base resin, the base resin containing more than 50 to 1000 parts by weight of a polystyrene-based resin component relative to 100 parts by weight of a non-crosslinked linear low-density polyethylene-based resin component, wherein the base resin contains less than 2 wt% of a gel component comprising a graft polymer of the polystyrene-based resin component and the low-density polyethylene-based resin component.

6. Expandable beads of a styrene-modified linear low-density polyethylene-based resin obtained by the method of Claim 1.

11. Pre-expanded beads having a bulk density of 20 to 200 kg/m<sup>3</sup>, obtained by pre-expanding the expandable beads of the styrene-modified linear low-density polyethylene-based resin of Claim 6.

14. An expanded molded article having a density of 20 to 200 kg/m<sup>3</sup>, obtained by expansion molding of the pre-expanded beads of Claim 11.

The Examiner relies on the following evidence to establish unpatentability of the claims on appeal (Examiner's Answers ("Ans."), mailed December 12, 2008, 5):

Smith	3,963,816	Jun. 15, 1976
Senda	4,368,218	Jan. 11, 1983
Wicher	6,608,150 B1	Aug. 19, 2003
Takamasa	JP 01284536	Nov. 15, 1989 <sup>3</sup>

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<sup>3</sup> Our reference to Takamasa is to the corresponding English translation (translated by Schreiber Translations, Inc.) provided by U.S. Patent and Trademark Office.

Applicants' admission on pages 2-3 of the Specification describing and explaining the content of Takamasa (hereinafter referred to as "the admitted prior art"),

Appellants request review of the following Examiner's rejections (App. Br. 7-10):

1. Claims 1, 2, 5, 6, and 7 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Takamasa and the admitted prior art;
2. Claims 9 through 16 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Takamasa, the admitted prior art, and Smith;
3. Claim 4 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Takamasa, the admitted prior art, and Senda;
4. Claims 3 and 8 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Takamasa, the admitted prior art, and Wicher; and
5. Claims 1 through 16 under nonstatutory obviousness-type double patenting as provisionally unpatentable over claims 1 and 3 through 9 of copending Application No. 10/541,391 assigned to Sekisui Plastics Co., Ltd.

Appellants traverse the Examiner's § 103 and nonstatutory obviousness-type double patenting rejections (App. Br. 7-32 and Reply Brief ("Reply Br."), filed February 12, 2009, 1-8). Appellants contend that the applied prior art, including Takamasa as further explained by the admitted prior art, would not have rendered, *inter alia*, the amount of a polymerization initiator recited in claims 1 through 4, 6 through 8, and 11 through 16 obvious to one of ordinary skill in the art (App. Br. 15-28 and

Reply Br. 12-13). Appellants also contend that the gel fraction of less than 2 wt% recited in claims 5, 9, and 10 in expandable beads of a styrene-modified linear low-density polyethylene-based resin would not have naturally flowed from following the teaching or suggestion of Takamasa, as further explained by the admitted prior art (App. Br. 28-30). Further, Appellants contend that the Examiner has not shown why and how one of ordinary skill in the art based on the claims of copending Application No. 10/541,391 would have been led to form expandable beads having the claimed gel and/or graft polymer content in the present application (App. Br. 30-31).

#### ISSUES AND CONCLUSIONS

The first question is: Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ the amount of a polymerization initiator recited in claims 1 through 4, 6 through 8, and 11 through 16 in forming expandable beads of a styrene-modified linear low-density polyethylene-based resin within the meaning of 35 U.S.C. § 103(a)?

On this record, we answer this question in the affirmative.

The second question is: Have Appellants identified reversible error in the Examiner's determination that the gel fraction of less than 2 wt% recited in claims 5, 9, and 10 in expandable beads of a styrene-modified linear low-density polyethylene-based resin would not have naturally flowed from following Takamasa's teaching or suggestion of expandable beads of a styrene-modified linear low-density polyethylene-based resin having otherwise an identical composition formed from the claimed ingredients

under a process substantially identical to that disclosed in the Specification within the meaning of 35 U.S.C. § 103(a)?

On this record, we answer this question in the negative.

The third question is: Have Appellants identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to form styrene-modified linear low-density polyethylene-based resin expandable beads having the gel or graft polymer content recited in claims 1 through 16 of the present application based on the claims of copending Application 10/541,391 under the judicially created doctrine of nonstatutory obviousness-type double patenting?

On this record, we answer this question in the affirmative.

#### FINDINGS OF FACT ("FF")

1. The Examiner finds, and Appellants do not dispute, that:

Takamasa et al. teach a method for producing expandable particles/beads of a vinyl aromatic-modified (i.e. styrene-modified) polyethylene-based resin (English-language Abstract, Lines 1-3).

The applicants' admitted prior art in the instant specification provides evidence that Takamasa et al. use a non-crosslinked linear low-density polyethylene. Furthermore, the composition of the polyethylene-based resin is 100 parts by weight of non-crosslinked linear low-density polyethylene-based resin beads, 5 to 300 parts by weight of a vinyl aromatic monomer (e.g. styrene-based monomer), 1 to 3 parts by weight of a polymerization initiator relative to 100 parts by weight of the vinyl aromatic monomer. These ingredients are dispersed in an aqueous medium to

obtain a dispersion (Instant Specification: Page 2, Lines 21-25 - Page 3, Lines 1-6). In the English-language abstract, Takamasa et al. state that a suspending agent . . . may also be dispersed in the aqueous medium (Lines 5-8), thereby rendering this aqueous medium a suspension.

....

The dispersion formed is heated at a temperature such that the vinyl aromatic (e.g. styrene) monomer is infiltrated/impregnated into the polyethylene resin particles/beads but polymerization of the monomer does not substantially occur (English-language Abstract, Lines 9-11).

The applicants' admitted prior art in the instant specification also provides evidence that Takamasa et al. use linear low-density polyethylene-based resin beads with a melting point of 122°C (Instant Specification: Page 3, Lines 22-25). The polymerization of the vinyl aromatic (e.g. styrene) monomer is performed at a temperature of 115°C.

Takamasa et al. disclose that the particles are impregnated with a volatile blowing agent during or after the polymerization (English-language Abstract, Lines 12-13).

The applicants' admitted prior art in the instant specification further provides evidence that the resin components of the expandable beads of Takamasa et al. contain a gel component comprising the graft polymer of polystyrene on the polyethylene chain (Page 4, Lines 4-12). However, the specific percentage weight of the gel component comprising the graft polymer when a polymerization initiator is used in the claimed

amount is not disclosed. [(Compare Ans. 5-7 with App. Br. 8-20 and Reply Br. 1-12.)]

2. Takamasa teaches (p. 8) that:

The amount of vinyl aromatic monomer is 5-300 parts by weight, preferably 30-200 parts by weight to the polyethylene group resin at 100 parts by weight.

3. Takamasa teaches (pp. 9-10) that:

If the amount [of a polymerization initiator employed] is less than 1.0 part by weight [per 100 parts by weight of a vinyl aromatic component], the dispersed particle diameter of the vinyl aromatic polymer in the enhanced polyethylene group resin particles being obtained is large, and in the foamed molded body being obtained by pre-foaming said particles and further heating and molding them, not only its rigidity is not improved, but the impact resistance intrinsic to the polyethylene group resin is damaged.

4. The Specification, at page 57, states that:

As seen in Table 5 and Fig. 1, it is understood that the gel fraction is remarkably decreased when the polymerization temperature is in a range of the present invention (112 to 118 °C and 128 to 130 °C).

5. Table 5 at page 56 of the Specification and Fig. 1 of the present application show that at the polymerization temperature of 115 °C exemplified in Takamasa would necessarily result in styrene-modified linear low-density polyethylene-based resin expandable beads having the claimed gel content of less than 2 wt%.

6. The Examiner relies on Wicher for teaching “a step-wise process for polymerizing styrene monomer using two different temperature stages” to show obviousness for employing an additional styrene polymerization step in the process of Takamasa (Ans. 11).

7. The Examiner relies on Senda to show obviousness of forming expandable beads having the shape and size recited in dependent claim 4 (Ans. 8).

8. The Examiner relies on Smith to show obviousness of forming expanded molded articles from pre-expanded, expandable beads of polyethylene and/or styrene (Ans. 7, 9, and 12-15).

9. The Examiner acknowledges that the claims of the present application recite, among other things, expandable beads containing less than 2 wt% of a graft polymer or less than 2 wt% of a gel component, rather than containing a gel component comprising 2 to 40 wt% of a graft polymer or 2 to 40 wt% of a gel component comprising a graft copolymer as recited in the claims of copending Application 10/541,391 (Ans. 15-16 and 30-31).

10. The Examiner has not explained why and how one of ordinary skill in the art would have been led to form expandable beads less than 2 wt% of a graft polymer or less than 2 wt% of a gel component contrary to the requirements of the claims of copending Application 10/541,391 and in the absence of the knowledge of making such expandable beads in the claims of copending Application 10/541,391. *Id.*

## PRINCIPLES OF LAW

Appellants bear the procedural burden of identifying harmful or reversible error in the Examiner's rejections. *See, e.g., In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness") (citation and internal quote omitted).

## OBVIOUSNESS

As stated in *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003), referring to *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985):

We have also held that a *prima facie* case of obviousness exists when the claimed range and the prior art range do not overlap but are close enough such that one skilled in the art would have expected them to have the same properties.

According to *In re Aller*, 220 F.2d 454, 456 (CCPA 1955):

[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

A prior art reference teaching away from the claimed invention is evidence of nonobviousness within the meaning of 35 U.S.C. § 103(a). *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). According to our reviewing court in *In re Gurley*, 27 F.3d at 553:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or

would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.

Moreover, as stated in the predecessor to our reviewing court in *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977):

Where . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. § 102, on 'prima facie obviousness' under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. [Footnote and citations omitted].

See *In re Papesch*, 315 F.2d 381, 391 (CCPA 1963) ("a compound and its properties are inseparable"); see also *Ex parte Obiaya*, 227 USPQ 58, 60 (BPAI 1985) ("The fact that appellant has recognized another advantage[ous feature] which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.").

#### NON-STATUTORY OBVIOUSNESS-TYPE DOUBLE PATENTING

As stated by our reviewing court in *In re Braat*, 937 F.2d 589, 592 (Fed. Cir. 1991)(citation omitted):

Obviousness-type double patenting is a judicially created doctrine intended to prevent improper timewise extension of the

patent right by prohibiting the issuance of claims in a second patent which are not “patentably distinct” from the claims of a first patent.

An obviousness-type double patenting analysis is analogous to an obviousness analysis under 35 U.S.C. § 103(a). *See Studiengesellschaft Kohle mbH v. N. Petrochemical Co.*, 784 F.2d 351, 355 (Fed. Cir. 1986); *In re Longi*, 759 F.2d 887, 892-93 (Fed. Cir. 1985).

## ANALYSES

### OBVIOUSNESS

As is apparent from pages 5 through 27 of the Answer, the above-mentioned § 103(a) rejections of claims 1 through 4, 6 through 8, and 11 through 16 are premised upon the Examiner’s determination that Takamasa’s disclosure of, *inter alia*, the amount of a polymerization initiator would have rendered the claimed amount of a polymerization initiator in the claimed expandable beads of a styrene-modified linear low-density polyethylene-based resin obvious to one of ordinary skill in the art. Takamasa teaches employing a polymerization initiator in the range of 1.0 to 3.0 parts by weight relative to 100 parts by weight of the styrene-based monomer, which is outside of the claimed range of a polymerization initiator in the claimed expandable beads of a styrene-modified linear low-density polyethylene-based resin. In other words, Takamasa does not teach the limitation “0.1 to 0.9 parts by weight of a polymerization initiator relative to 100 parts by weight of the styrene-based monomer” in claims 1 through 4, 6 through 8, and 11 through 16. Thus, the Examiner relies on the reasoning set out in *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985) and/or *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) in order to show

obviousness of employing the claimed range of a polymerization initiator in expandable beads of a styrene-modified linear low-density polyethylene-based resin based on the disclosure of Takamasa (includes the admitted prior art).

Notwithstanding the Examiner's arguments to the contrary, however, one of ordinary skill in the art interested in optimizing the amount of a polymerization initiator employed in Takamasa would not expect to depart from the range specifically taught by Takamasa to provide desired polymer properties. *See, e.g., Aller*, 220 F.2d at 456. To do so would run counter to the direction and guidance taught by Takamasa. Nor does Takamasa provide any expectation on the part of one of ordinary skill in the art of forming styrene-modified linear low-density polyethylene-based resin expandable beads having the same or even similar properties upon using the claimed amount of a polymerization initiator as required by *Titanium Metals Corp. v. Banner*, 778 F.2d at 783.<sup>4</sup> According to Takamasa, the employment of the claimed amount of a polymerization initiator imparts inferior properties (not the same or similar properties) to the resulting styrene-modified linear low-density polyethylene-based resin expandable beads. For this reason, Takamasa also discourages one of ordinary skill in the art from employing the claimed amount of a polymerization initiator in forming styrene-modified linear low-density polyethylene-based resin expandable beads. *See, e.g., Gurley*, 27 F.3d at 553. Specifically, Takamasa teaches (pp. 9-10) that:

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<sup>4</sup> The factual basis for the rationale set out in *Titanium Metals* does not exist in this case.

The amount of polymerization initiator being used is 1.0-3.0 parts by weight, preferably 1.1-2.0 parts by weight to the vinyl aromatic monomer at 100 parts by weight. If the amount is less than 1.0 part by weight, the dispersed particle diameter of the vinyl aromatic polymer in the enhanced polyethylene group resin particles being obtained is large, and in the foamed molded body being obtained by pre-foaming said particles and further heating and molding them, not only its rigidity is not improved, but the impact resistance intrinsic to the polyethylene group resin is damaged.

Accordingly, Appellants have identified reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to employ the claimed amount of a polymerization initiator in forming the expandable beads of a styrene-modified linear low-density polyethylene-based resin recited in claims 1 through 4, 6 through 8, and 11 through 16 within the meaning of 35 U.S.C. § 103(a).

Claims 5, 9, and 10, however, are on different footing. Claims 5, 9, and 10 do not require the presence of the amount of a polymerization initiator recited in claims 1 through 4, 6 through 8, and 11 through 16. Nor do they require any particular method for producing expandable beads of a styrene-modified linear low-density polyethylene-based resin.

Although Takamasa does not expressly mention the presence of the claimed gel fraction of less than 2 wt% in its expandable beads of a styrene-modified linear low-density polyethylene-based resin as argued by Appellants, it teaches or suggests forming expandable beads of a styrene-modified linear low-density polyethylene-based resin having an otherwise same composition employing the same amounts of the claimed ingredients in a process substantially identical to that described in the Specification. In

its exemplified process, Takamasa employs a polymerization temperature of 115 °C in forming its styrene-modified linear low-density polyethylene-based resin expandable beads, which according to Appellants at Table 5 and Fig. 1 of the present application, impart the claimed gel content of less than 2 wt%. Thus, there is a reasonable basis to believe that the styrene-modified linear low-density polyethylene-based resin expandable beads taught or suggested by Takamasa would naturally or necessarily contain the claimed gel content of less than 2 wt%. *See In re Best*, 562 F.2d at 1255; *Ex parte Obiaya*, 227 USPQ at 60.

The burden is on Appellants to show that the styrene-modified linear low-density polyethylene-based resin expandable beads taught or suggested by Takamasa do not necessarily have the claimed gel content of less than 2 wt%. However, Figure 1 and Table 5 show that, on this record, Appellants have not shown that the styrene-modified linear low-density polyethylene-based resin expandable beads produced from employing a polymerization temperature of 115 °C do not contain the claimed gel content of less than 2 wt%.

Accordingly, Appellants have not identified any harmful or reversible error in the Examiner's determination that Takamasa's styrene-modified linear low-density polyethylene-based resin expandable beads having the claimed ingredients necessarily or naturally contain the claimed gel content of less than 2 wt% as required by claim 5 within the meaning of 35 U.S.C. § 103(a).

As to claims 9 and 10, Appellants do not dispute the Examiner's determination at page 15 of the Answer that:

At the time of invention, it would have been obvious to a person of ordinary skill in the art to pre-expand the resin beads, as taught by Smith et al., to obtain the expanded molded article taught by Takamasa et al. The motivation would have been that pre-expanding the beads allows one to control the density of the final product, which, in this case, is an expanded molded article.

Rather, Appellants rely on the same argument raised in connection with the § 103(a) rejection of claim 5 as unpatentable over Takamasa, as explained by the admitted prior art.

Thus, for the same reasons set forth above, we determine that Appellants have not identified any harmful or reversible error in the Examiner's determination that one of ordinary skill in the art would have been led to pre-expand Takamasa's styrene-modified linear low-density polyethylene-based resin expandable beads having the claimed gel content of less than 2 wt% to obtain a desired expanded molded article having the claimed density within the meaning of 35 U.S.C. § 103(a).

#### NONSTATUTORY OBVIOUSNESS-TYPE DOUBLE PATENTING

The claims of the present application recite, among other things, styrene-modified linear low-density polyethylene-based resin expandable beads containing a gel component comprising less than 2 wt% of a graft polymer or less than 2 wt% of a gel component rather than containing a gel component comprising 2 to 40 wt% of a graft polymer or 2 to 40 wt% of a gel component comprising a graft copolymer, as recited in the claims of copending Application 10/541,391. However, the Examiner speculates that the optimization of the expandable beads containing a gel component comprising 2 to 40 wt% of a graft polymer or containing 2 to 40 wt% of a

gel component comprising a graft copolymer required by the claims of copending Application 10/541,391 would somehow result in the expandable beads containing the gel or graft polymer content recited in the claims on appeal. As correctly identified by Appellants at pages 30 and 31 of the Appeal Brief, the Examiner has not explained why and how one of ordinary skill in the art would have been led to form expandable beads containing a gel component comprising less than 2 wt% of a graft polymer or less than 2 wt% of a gel component contrary to the requirements of the claims of copending Application 10/541,391. The Examiner has provided insufficient facts to depart from the subject matter claimed in copending Application 10/541,391.

Accordingly, Appellants have identified reversible error in the Examiner's decision rejecting claims 1 through 16 under nonstatutory obviousness-type double patenting based on the claims of copending Application 10/541,391.

#### ORDER

In view of the foregoing, the decision of the Examiner rejecting the claims on appeal is affirmed-in-part.

#### AFFIRMED-IN-PART

psb

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